LVB Tracker Box

2007 AMSAT Symposium

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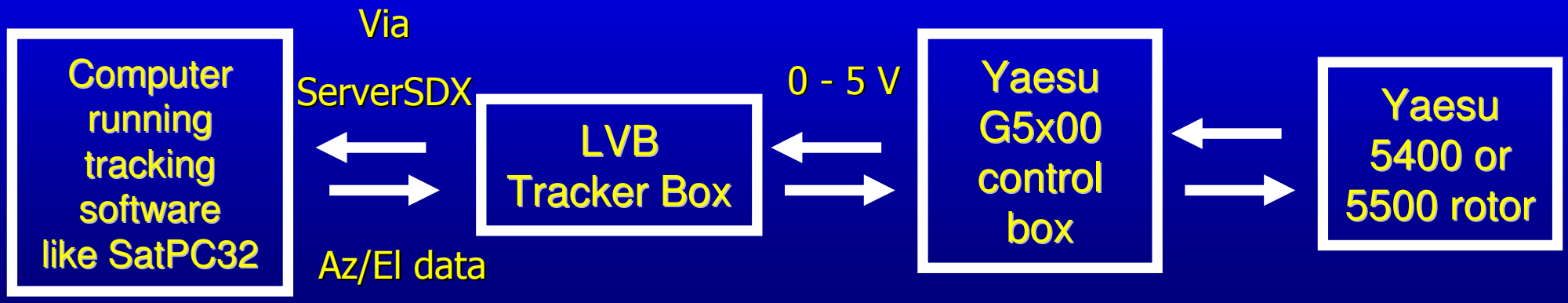
What is the LVB Tracker?

- 21st Century satellite rotor controller
- It is the interface between tacking software and the Yaesu 5400/5500 rotors
- It is the replacement solution for the ISA bus-based KCT & other units using superseded technology



Why do we need it?

- ISA slots are non-existent in new PCs
- COM (RS-232) ports are becoming less common in new equipment, laptops in particular
- LPT ports even less common, and also difficult to program control signals from applications under newer OS's
- LVB Tracker uses USB, Ethernet or Serial communications

LVB Tracker History

- 2003 Howard Long, G6LVB, developed the board
- 2003 Paper presented AMSAT-UK Symposium
- 2004 AMSAT-UK offered the boards
- 2005 WA4SXM built a board
- 2007 AMSAT-NA offered boards at Dayton
- 2007 Complete unit offered at 2007 Symposium

LVB Tracker at Dayton 2007

Mike, WB8CXO built the demo unit

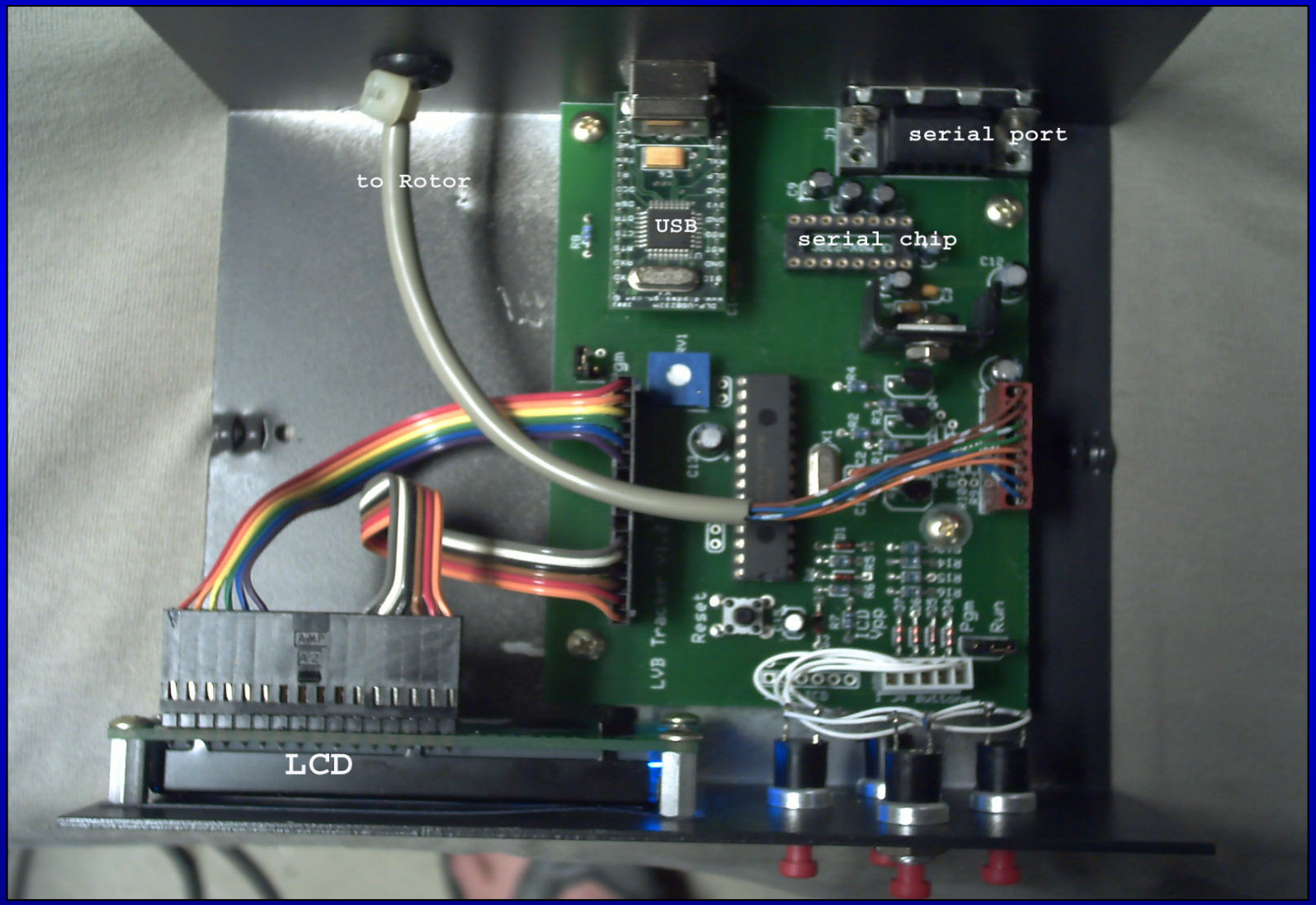
LVB Tracker Box Features

- Open software
- Self programmable
- Comes with a cable/DIN plug for rotor controller
- LCD readout of Azimuth and Elevation,
  1° increments (> 1 ° resolution)
- Auto stop function if the rotor does not turn
- Front panel manual control

LVB Tracker Box Features

- Cross platform support – Linux, Open BSD, Free BSD, Windows 98, ME, 2000, XP, Vista, Mac OS-8, OS-9 and OS-X
- Uses standard GS-232A or Easycomm I/II protocols
- Can be used with the major tracking programs like: SatPC32, Nova, Mac Doppler
- USB, Ethernet or serial connection

Inside the LVB Tracker

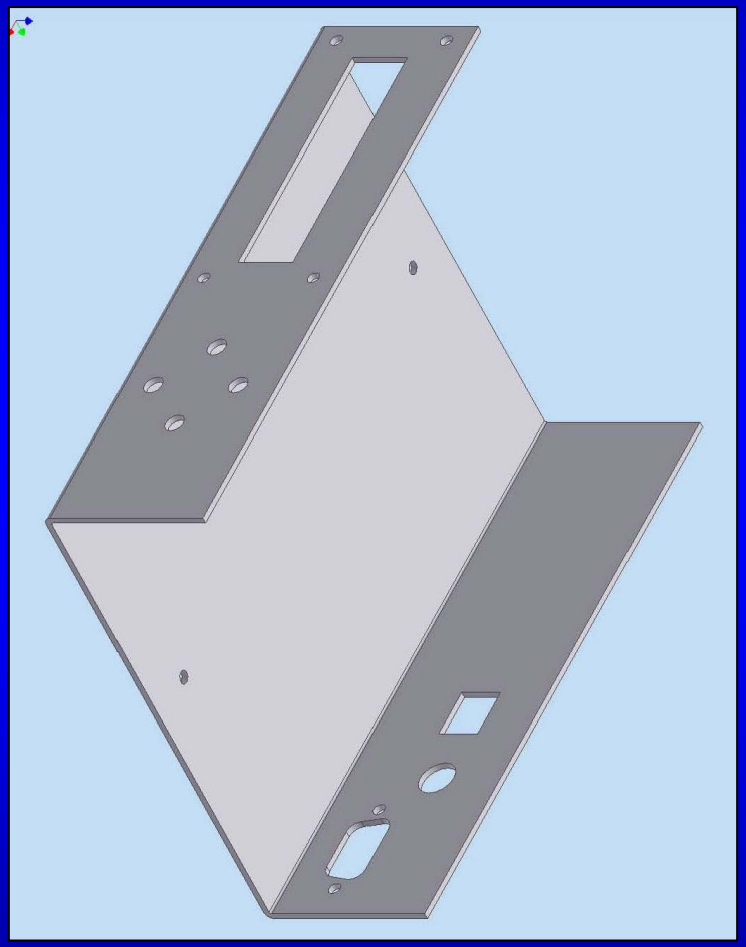


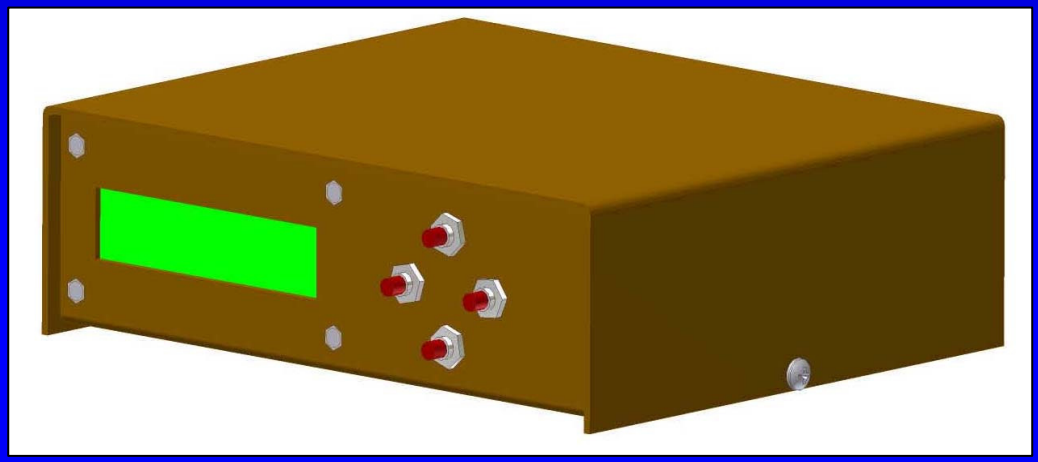
LVB Tracker 2

- Self-contained tracking algorithm
  - Satellite Az/El information on LCD
  - GPS interface
- Audible satellite AOS alarm
- Battery power possible
- Keplerain upload into the unit
- Open source microcontroller code
- Uses the same board and enclosure
- Replace µP, comm chip and add a couple of connectors

LVB Tracker Box Production Facility

LVB Tracker Box CAD





- Thanks to Dick, KD1K for doing the CAD drawings for the enclosure

Available from AMSAT

- Bare Board
- Populated board with serial chip
  (no LCD, no rotor cable, no buttons, no USB module)
- Custom Enclosure by Ten-Tec
- Complete unit (enclosure, LCD, board, USB module, rotor cable and buttons)

LVB Tracker Box Resources

- *http://www.g6lvb.com/*
- *LVB Tracker CD*
- *other resources to follow*

Contact Martha at the office to order

Demo units at the AMSAT Table